BRANCHING OUT
IPM NEWSLETTER FOR TREES & SHRUBS

Late Summer Pests at the Entomology Diagnostic Lab

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Cottony hydrangea scale—trial results

We were able to conduct a replicated trial to evaluate controls for cottony hydrangea scale. Crawlers were active in early July but we weren't able to apply treatments until early August, targeting what appear to be second instars that have settled on both sides of leaves. Treatments included Kontos (for nursery only), TriStar, and Distance. CapSil wetting agent was included with all sprays, applied to thoroughly wet foliage and stems. While we have not yet analyzed the data, it is clear TriStar was very effective and other treatments, so far, were much less so. Distance may need to be timed when scales are actively growing, as it interrupts the molting process, or we may need to re-evaluate later as scales start to grow again. A challenge with these plants is getting good coverage despite the dense canopy. The active ingredient in TriStar is known to have translaminar activity at least in some plants and was chosen for this reason; including a penetrating surfactant may enhance activity.

Skeletonized leaves on trees and shrubs

We're seeing a lot of skeletonization on the upper surface of leaves on various trees and shrubs. About 15 years ago we started seeing more of this in our area in nurseries and landscapes. The original culprit was identified after an intrepid rhododendron grower found jumping bush cricket (*Orocharis saltator*) in the act during a late-evening foray with a flashlight. The damage appears usually as upper leaf surface tissue chewed away, accumulating from mid-summer. The chewed areas turn brown and become very obvious around now. Recent samples were seen on pawpaw, maple and *Physocarpus*. I have seen at least one other arboreal cricket causing similar damage to annuals in one of our trials.

Jumping bush cricket (Orocharis saltator) and damage on European beech © D. Gilrein

Leafminers in boxwood, arborvitae

Boxwood leafminer is a kind of gall midge (fly) that favors certain varieties over others. Unfortunately these tend to be the most popular ones. It is possible to control it this time of year, but options are limited to products containing imidacloprid (Merit and others), as a foliar spray or soil drench (there is also a tablet version). TriStar may also work well as a foliar spray; be sure to direct sprays to leaf undersides and treat from all sides if possible. Damage from arborvitae leafminer, the caterpillar of small moth, is starting to become very apparent as small, brown spots on foliage. Where there has been a history of infestation check plants carefully for evidence of infestation. Acephate 97UP has a 2(ee) label in NY for control of this pest. We found application in August worked well, but even treating in mid-September still provided fairly good control. Expect little to no control if treatment is delayed to spring when damage symptoms are most apparent.

Arborvitae leafminer injury in late summer. Damage becomes much more apparent by mid-spring © Dan Gilrein

Webworms in hardwoods

I have had several complaints about insect web 'nests' on tree terminals. These are from fall webworm, which also has an earlier generation in July. Hosts include over 100 hardwood species. Native here, it has even more hosts where it is established in Europe and Asia. Regional preferences for certain trees has been noted, though I can't say I have seen that on Long Island. The caterpillars feed gregariously, starting as skeletonizers before enveloping foliage with silk. Defoliation probably has minimal impact on tree health; the USDA Forest Service notes "impacts to plant health cannot be observed until defoliation involves more than 20% of the foliage." Small and newly planted trees will need more protection. Though the damage is mostly done for the year, when active the 'nests' can be treated with an insecticide containing Bt, spinosad, pyrethroid, acephate, or (landscape only) indoxacarb or chlorantraniliprole (not for Long Island). Some trunk injections are also labeled. Several other caterpillars form web 'nests' in trees or shrubs, including eastern tent caterpillar (in spring only, rosaceous hosts), genista caterpillar (broom, *Baptisia*, *Laburnum*, *Maackia*, *Sophora*, *Buddleia*,crape myrtle, honeysuckle), uglynest caterpillar (hawthorn, rose, cherry esp.), oak webworm, and euonymus caterpillar. In 2014 there were some spectacular euonymus caterpillar webs seen in the town of Lewiston. Ailanthus webworms will also create small web 'nests' in terminals of their host—the striking moths generate inquiries every year.

Fall webworm on mulberry © Dan Gilrein